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PHOTOIMAGABLE DIELECTRIC, ITS MANUFACTURE AND USE IN ELECTRONICS

ABSTRACT OF THE DISCLOSURE

Photoimagable polymers, as well as dielectric materials and their manufacture and use in the production of printed circuit boards and printed wiring boards are described. The polymers comprise between about 30 and about 70 parts of a polyfunctional resin and between about 70 and about 30 parts of the condensation product of an epihalohydrin and a bisphenol based on 100 parts by weight of resin. The polymer is cured by a photocationic initiator. It is characterized by a glass transition temperature of at least about 140°C and a flex fatigue life of at least about 10,000 cycles at a 3% strain. Optionally, less than 10 parts of a third specified epoxy resin may be added to the mixture to improve flexibility without decreasing the glass transition temperature of the polymer.